

Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Sorting Category: 06.1 (E)

Contact-less measurements of Shubnikov-de Haas oscillations below Néel temperature in single crystals SmAgSb₂
M. D. VANNETTE, R. PROZOROV, S. L. BUD'KO, P. C. CANFIELD,
B. N. HARMON, Ames Laboratory and Department of Physics and Astronomy, Iowa State University, Ames, Iowa 50011 — Oscillations of a skin depth with magnetic field were measured in single crystals SmAgSb₂ by using radio-frequency resonant technique. Comparison with directly measured de Haas – van Alphen and Shubnikov – de Haas oscillations revealed additional details in the frequency spectra, probably due to high sensitivity of the measurements $\Delta\rho_{min} \approx 20 \text{ p}\Omega \cdot \text{cm}$. The temperature evolution of the frequency spectra was obtained. The correlation of the observed oscillations with calculated Fermi surface and possible influence of antiferromagnetic ordering are discussed.

☒ Prefer Oral Session
☐ Prefer Poster Session

Matthew Vannette
vannette@iastate.edu

Date submitted: 28 Nov 2005

Electronic form version 1.4